

REMARKS

In accordance with the foregoing, claims 1, 6, 15, and 16 are amended. No new matter is added. Claims 1, 4-6 and 9-16 are pending and under consideration.

Interview

First, Applicant wishes to thank the Examiner for the courtesy of an interview granted to Applicant's representative on August 9, 2007, at which time the outstanding issues in this case were discussed. Arguments similar to the ones developed hereinafter were presented and the Examiner indicated that in light of the arguments and claim amendments, he would reconsider the outstanding grounds for rejection upon formal submission of a response.

Claim Rejection Under 35 USC §112

Claim 16 is rejected under 35 USC §112, first paragraph, relative to the phrases "generating an image" and "predetermined character." Applicants respectfully traverse the rejections in view of the following explanations.

The Office Action submits that the specification is enabling relative to optically scanning a payment form to obtain an image. That is, the payment form, which is a paper, is optically scanned to obtain a graphic image that can be processed, for example, by a computer. Thereby, Applicants submit that the recited "generating an image of the payment form" in claim 16 refers exactly to the process of obtaining the image of the payment form which can be then processed for character recognition. The Office Action referring to page 7, line 24 to page 8, line 3, shows that the claim language has a definite meaning in the context of the specification, which renders the recitation enabled as required by 35 USC §112, first paragraph.

Further, the other claims and the originally filed specification describe localizing a hyphen to identify an account number within an image. In the phrase "predetermined character", the term "predetermined" suggests that a certain or specific character, such as the hyphen, is searched for. The claim language implies that a determination of which character to be searched is not performed, and that only one character is searched for. The term "predetermined" is used according to its plain meaning, and, therefore, does not have to be included literally in specification for being properly used in the claim.

Claim Rejections Under 35 USC §103

Claims 1, 4-6, 9-11, 13, 15 and 16 are rejected under 35 USC §103(a) as being unpatentable over U.S. Patent No. 6,885,769 to Morita et al. (hereinafter "Morita") in view of U.S. Patent No. 6,351,735 to Deaton et al. ("Deaton"), and in further view of U.S. Patent No. 5,265,171 Sangu ("Sangu").

In the Amendment filed on February 6, 2007, Applicants argued that Morita and Deaton do not anticipate "searching for the payee account number in the image in an unknown position of the form" (emphasis added). Specifically, Applicants argued that Deaton discloses a character recognition and confirmation system in which a magnetic head reads the MICR portion of a check, and an account number is recognized within the MICR portion. Magnetic Ink Character Recognition (MICR) is a character recognition system that uses special ink and characters. When a document containing portions printed with the special ink passes through a special apparatus, the ink is magnetized and the information is read by a magnetic head. Deaton's method is able to analyze only portions of the check written with the special ink which is limiting, the portions not being "an unknown position." Deaton explicitly states that the method presented therein has the ability "to detect customer account number on any and all bank checks, regardless of the location of the account number within the MICR number"¹ (emphasis added). In other words, Deaton's method does not identify the account number at "an unknown position," but the method identifies the account number within a limited portion of a document, within the MICR number.

The outstanding Office Action does not respond to the above argument, alleging that the argument is moot in view of the newly cited reference, Sangu. Sangu is directed to an optical character reading and spell-checking apparatus in which character strings are divided based on an interval between characters in a document. If a hyphen occurs within a character string, another character string is generated according to the position of a hyphen. For example, when the hyphen is present at the end of a line, the hyphen is deleted, and the character string to be spell-checked results from concatenating the characters from the line and the next line. However, Sangu discloses hyphen's location being significant only at the end and/or beginning of a line, which is not at an unknown position as recited in claim 1. Therefore Sangu does not correct or compensate for the above-identified and previously-argued failure of Morita and Deaton in teaching "searching for the payee account number in the image in an unknown position of the form."

¹ See Deaton, col. 24, line 67 to col. 25, line 2.

The Office Action relies on Sangu to disclose teachings relevant to the claim amendments of February 6, 2007, that is, “wherein said recognizing comprises: searching for hyphens in the image; and recognizing said payee account number in areas surrounding a hyphen found in the image.” While Sangu indeed teaches searching for hyphens, Sangu does not teach recognizing a payee account number in areas surrounding a found hyphen. The Office Action promotes combining Deaton’s teachings in which an account number is identified within the MICR number with Sangu’s teaching recognizing hyphens at the end and/or beginning of a line. However, the suggested combination of prior art teachings is not logical. According to claim 1, the hyphen is used as a pivot to search around its position an account number. In Deaton, the account number is in the MICR and in Sangu the hyphen is at the end and/or beginning of a line. The hyphen is a character within the account number so the account number cannot be located at the end and/or beginning of a line as in Sangu. On the other hand the Deaton method can read only the MICR area so there is no reason to seek for the account number at any other location.

The independent claims are amended to clarify the claimed subject matter and recite additional features. For example, amended claim 1 recites that “the type of the form corresponding to said payee account number [is determined] from a document information table that stores account numbers correlated with types of the form” and “other data [are recovered] from locations of the payment amount according to the determined type of the form.” The claim amendments are fully supported by the originally filed specification, for example, form data table 32 on FIG. 6 and step 220 in FIG. 8 and their corresponding descriptions.

Amended independent claim 1, and claims 4, 5, 11 and 12, depending from claim 1 patentably distinguish over the cited prior art at least because claim 1 recites:

- “searching for the payee account number in the image at an **unknown position** in accordance with an account number searching rule” and
- “**determining a type of the form based on the payee account number** by determining the type of the form corresponding to said payee account number from a document information table that stores account numbers correlated with types of the form” and
- “**recovering other data from locations according to the determined type of the form**” (emphasis added).

Amended independent claim 6 and claims 9, 10, 13 and 14, depending from claim 6 patentably distinguish over the cited prior art at least because the cited prior art does not teach or suggest the following features of claim 6:

- “a processing unit, which performs searching for the payee account number in the image in an unknown position of the form [...], **determines a type of the form** corresponding to said payee account number from a document information table that stores numbers correlated with types of the form, and **recovers other data from locations according to the determined type of the form**” (emphasis added).

Amended independent claim 15 is patentable over the cited prior art at least by reciting:

- “searching for and determining an account number in **an unknown position** of the payment form of the unknown type in the image”
- “**determining the payment form type** using the account number” and
- “**recovering data from locations according to the determined payment form type**” (emphasis added).

Independent claim 16 patentably distinguishes over the cited prior art at least by reciting

- “locating a predetermined character **anywhere within the image**”
- “**determining the type of the payment form** based on the account identifier which includes the located predetermined character” and
- “**recovering data from locations according to the determined type of the payment form.**”

Claims 12 and 14 are rejected under 35 USC §103(a) as being unpatentable over Morita in view of Deaton, in further view of Sangu and in further view of U.S. Patent Application Publication No. 2002/0073060 Geisel et al. (“Geisel”). Geisel does not compensate the failure of Morita, Deaton and Sangu to teach or suggest all the features of the independent claims.

Conclusion

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

If there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

Serial No. 09/767,842

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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